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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/822,651	03/30/2001	Scott J. Tuman	54407USA6B.006	9447

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EXAMINER
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TSOY, ELENA

ART UNIT	PAPER NUMBER
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1762

DATE MAILED: 04/13/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/822,651

Applicant(s)

TUMAN ET AL.

Examiner

Elena Tsoy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 February 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 71-108 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 71-108 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2/23/06.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114 was filed in this application after appeal to the Board of Patent Appeals and Interferences, but prior to a decision on the appeal. Since this application is eligible for continued examination under 37 CFR 1.114 and the fee set forth in 37 CFR 1.17(e) has been timely paid, the appeal has been withdrawn pursuant to 37 CFR 1.114 and prosecution in this application has been reopened pursuant to 37 CFR 1.114. Applicant's submission filed on 2/23/2006 has been entered.

***Response to Amendment***

Request for Reconsideration filed on 2/23/2006 has been entered. Claims 21-70 have been cancelled. New claims 71-108 have been added. Claims 71-108 are pending in the application.

***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

2. Claims 74, 90 and 98 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The limitation "one or more stems of the plurality of stems extend from an *interior* of the discrete polymeric region" was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed.

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3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 74, 90 and 98 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 74, 90, 98, lines 2-3, line the phrase “one or more stems of the plurality of stems extend from an *interior* of the discrete polymeric region” renders the claim indefinite because it is not clear how otherwise stems could extend from the discrete polymeric region to which they are **fused**. For examining purposes the phrase was interpreted as “one or more stems of the plurality of stems extend from the discrete polymeric region”.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 71-79, 83-84, 86, 88-90 are rejected under 35 U.S.C. 102(b) as being anticipated by Thomas (US 5,586,371).

Thomas discloses a web construction comprising a substrate (web) 24 coextensive with the web construction; the web comprising arrays of free formed loops 22, joined to a substrate 24 (See column 5, lines 47-58). The loops 22 have bases 26, shanks 28 and distal ends 30, the bases 26 of the loops 22A contact and adhere to the substrate 24, and support the proximal ends of the shanks 28. The shanks 28 project **outwardly** from the substrate 24 and bases 26. See column 5, lines 5-16. The free formed array of loops 22 is preferably produced by passing a substrate 24 having opposed surfaces between the nip 58 of the print cylinder 60 and a backing roll 62, as illustrated at FIG. 5. The depositing print cylinder 60 has an array of perforations, as shown more clearly in FIG. 6, referred to as apertures 56. The second roll, referred to as the backing roll 62, provides the reaction against the print cylinder 60 to position the substrate 24 against the print cylinder 60 as the substrate 24 passes through the nip 58. **Liquid**, molten polymer is supplied from a heated pressure bar 72. The liquid polymer is then extruded from the apertures 56 onto the substrate 24 (See column 5, lines 29-58) so that the base 26 does not separate from the substrate during use (See column 6, lines 62-63), i.e. loops are *fused* to the substrate 24. As relative displacement between the substrate 24 and print cylinder 60 increases, the material forming the members 22A, which eventually form the loops 22, is stretched in a direction having a lateral vector component, generally parallel to the plane of the substrate 24, forming the shank 28 and the distal ends 30. See column 5, lines 30-67. Once the material in the form of member 22A fuses with an adjacent

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member 22A or back upon itself, the material then cools, and preferably freezes, into a solid loop structure 22 having an orifice or opening 32 capable of receiving a male, hook component. (See column 6, lines 1-14).

An array of adjacent loop components form claimed “discrete polymeric regions” because bases 26 of the loops are fused to each other so that each loop does not form a separate polymeric region as shown in Figs. 1-3. And a plurality of loops has shanks 28 extending from each discrete array (claimed discrete polymeric region). Thomas defines the term “shank” as a portion of the loop 22 which is intermediate of and contiguous with the base 26 and the distal end 30 (See column 7, lines 16-20). Since Applicants did not define a term “stem”, the term “stem” can be given the broadest reasonable interpretation. The loop shanks 28 clearly can be broadly interpreted as “stems”, and therefore, cover claimed stems. Therefore, Thomas discloses each and every element of claimed invention. The web 24 comprises loop structures adapted to lock with the plurality of stems (See Figs. 2, 3; column 6, lines 14-40; column 15, lines 26-46). The web 24 comprises **knitted** (*elastic, porous*) fabric, **woven** (*elastic, porous*) materials (See column 6, lines 44-45). The web comprises nonwoven web material (See column 6, line 45). The plurality of discrete regions comprises a plurality of stripes (See Fig. 2). The plurality of discrete regions comprises a plurality of **patches** (See Fig. 2). The plurality of stems is oriented at an angle that is not normal to the web plane (See Fig. 2). The plurality of stems is oriented in the same direction at an angle that is not normal to the web plane (See Fig. 2).

8. Claims 71-84, 86-106, and 108 are rejected under 35 U.S.C. 102(b) as being anticipated by Wessels et al (US 5,669,120).

Wessels et al disclose a mechanical fastener for the use in diapers (See column 2, line 4) formed from a web construction comprising a pile core sheet S of a coarse woven or knit (See

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column 4, lines 19-20) having a number of pile regions S1 of a predetermined width and a number of coarse mesh regions S2 of a predetermined width arranged alternately in the transverse direction as shown in FIG. 3. The foundation structure of the coarse mesh region S2 is devoid of piles and is woven or knitted of fiber so as to have pores for the passage of molten resin 4. See column 6, lines 25-39. The mechanical fastener is produced by continuously injecting molten resin 4 from the injection die 1 onto the circumferential surface of the die wheel 2 through the pores of the coarse mesh regions S2, filling in the hook-element-forming cavities 5a successively to form hook elements 4b as the molten resin 4 is expanded uniformly over the circumferential surface of the die wheel 2. As a result, the molten resin 4 remaining on the injection outlet of the injection die 1 and the expanded molten resin 4 are fused with the component material of the pile core sheet S to form the substrate sheet 4a having a predetermined thickness (See column 7, lines 10-28). The pile core sheet S keeps traveling around the circumferential surface of the die wheel 2 as it is forced there against under molten resin pressure so that the pile core sheet S is embedded in the substrate sheet 4a of the molded surface fastener eccentrically toward the hook-element-surface side or front-surface side as shown in FIG. 2. The molten resin 4 shaped into the surface fastener on the circumferential surface of the die wheel 2 is cooled so that the substrate sheet 4a, in which the pile core sheet S is embedded, integrally with the hook elements 4b become gradually hard. (See column 7, lines 43-55). Figs. 4A through 4E show various modified surface fasteners in which the hook elements 4b and the loop elements 15 coexist on the same substrate sheet (See column 9, lines 50-53).

Thus, a mechanical fastener of Wessels et al comprises an **elastic** pile core sheet S containing a plurality of discrete polymeric regions having web S2 embedded in a polymer resin 4a, a plurality of hook elements 4b fused to one (first) side of the resin 4a; (See Figs. 4A-4F). The

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plurality of hooks are oriented at angle that is not normal to web plane in the same direction (See Fig. 4E). The web construction may be of **composite** structure such as shown in Figs. 4B, 4D and 4F. The hook elements may be of **hook-** or **mushroom-**shape engaging elements (See column 1, lines 19-20).

As to elastic structure, the web construction of a structure shown at Fig. 4A is elastic because a pile core sheet S is of a coarse **woven** or **knit** cloth with great flexibility (See column 6, lines 32-39).

As to claims 94-106 and 108, a substrate comprises a fibrous surface as a first major side and a second major side; a non-woven film layer 4a on the second major side of the substrate; a plurality of discrete polymeric regions (**patches**) fused to the fibrous surface of the substrate such that polymer of the plurality of discrete polymeric regions is entangled with the fibrous surface of the substrate; the plurality of discrete polymeric regions (**patches**) located only on the first major side of the substrate; and a plurality of stems extending from each discrete polymeric region of the plurality of polymeric regions (See Figs. 4B, 4D and 4F).

9. Claims 85, 107 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wessels et al in view of Murasaki (US 5,643,651).

Wessels et al are applied here for the same reasons as above. Wessels et al fail to teach that the plurality of stems is oriented in multiple directions.

Murasaki teaches that a plurality of stems oriented at an angle that is not normal to the plane of the web in multiple directions provides a fastener with no directivity in engaging strength (See column 7, lines 53-56).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have made a hook material of a fastener in Wessels et al having stems that are angled in



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multiple directions with the expectation of providing the fastener with no directivity in engaging strength depending on particular use of a final product, as taught by Murasaki.

***Conclusion***

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elena Tsoy whose telephone number is 571-272-1429. The examiner can normally be reached on Monday-Thursday, 9:00AM - 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Elena Tsoy  
Primary Examiner  
Art Unit 1762

ELENA TSOY  
PRIMARY EXAMINER  
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April 12, 2006